Hepatitis C Virus Cascade of Care Among People Who Inject Drugs:
A cross-sectional study of characteristics associated with accessing testing, treatment, and completion in a universal healthcare system
Acknowledgements and Conflicts of interest

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PWID at high risk of HCV infection

- Direct acting antiviral treatment can reduce HCV infection and mortality
- Large scale uptake of treatment needed
- Access to HCV testing, treatment, and retention in treatment among PWID low
- Given high risk of infection, targeting PWID is crucial to achieve necessary reductions
- To achieve this we need to know who is and who isn’t receiving testing and treatment.
Cascade of care improves understanding of continuum of care

- Adapted from framework used to monitor HIV care

- Improved understanding of HCV care, from diagnosis, to linkage to care, and completion of treatment
Aims

1. Establish the cascade of HCV care, from testing to completion of treatment, among a sample of PWID in Australia
2. Identify the sociodemographic, drug use, and clinical profile of those engaged at each stage of the cascade of care
Design: cross-sectional study of people who inject drugs across Australia

- Recruited from NSPs in capital cities in each state
- Injected drugs at least monthly in the past 6 months
- Structured interview on drug use and related issues
- 905 participants; median age 43; 66% male
- Multivariable regression was performed on four models:
  - Antibody testing
  - RNA testing
  - Treatment uptake
  - Testing for re-infection
HCV Cascade of Care

- Whole sample: 905
- Anti-HCV test: 796
- RNA tested: 539
- RNA positive: 292
- Entered treatment: 197
- Completed treatment: 181
- Testing for reinfection: 111

Number of IDRS participants
Antibody testing

• With 93% of the sample receiving antibody testing in their lifetime;

• Unadjusted associations:
  • ↑ Current OST (OR 2.36)
  • ↑ History of incarceration (OR 1.79)
  • ↑ Attending a GP (OR 1.74)
  • ↓ Crystal methamphetamine drug of choice (OR 0.45)

• No factors significantly associated with engagement with testing.
RNA testing

• 70% of those who had antibody test

• Unadjusted associations
  • ↑ Male (OR 1.44)
  • ↑ Current OST (OR 1.98)
  • ↑ History of incarceration (OR 1.76)
  • ↑ Attending a GP (OR 1.89)
  • ↑ Attending a drug and alcohol counsellor (OR 1.71)
  • ↓ Crystal methamphetamine drug of choice (OR 0.45)

• Adjusted associations
  • ↑ History of incarceration (OR 1.58)
  • ↑ Attending a GP (OR 1.59)
  • ↓ Crystal methamphetamine drug of choice (OR 0.54)
Treatment uptake

• 68% of those who were RNA positive

• Unadjusted associations
  • ↑ Current OST (OR 2.12)
  • ↑ Attending a GP (OR 2.15)
  • ↑ Attending a drug and alcohol counsellor (OR 1.99)
  • ↓ Injecting daily or more frequently (OR 0.53)
  • ↓ Receptive and/or distributive needle sharing (OR 0.32)

• Adjusted associations
  • ↑ Attending a GP (OR 1.96)
  • ↓ Injecting daily or more frequently (OR 0.54)
  • ↓ Receptive and/or distributive needle sharing (OR 0.33)
Testing for reinfection

- Small sample, so unable to investigate factors associated with retesting

- 98% of sample of those who commenced treatment completed, and 61% had tested for reinfection
Not testing or treating clusters with other risk factors

- People who did not receive treatment more likely to:
  - Inject daily or more often in the last month
  - Report receptive or distributive needle sharing

- Methamphetamine drug of choice - half as likely to receive RNA testing
  - Significant in both unadjusted and adjusted analysis
Mental health and homelessness not associated

• Neither self-reported mental health nor K10 score were associated with testing or treatment engagement

• Attendance at a mental health professional not associated

• Homelessness not associated with testing or treatment
Service engagement associated with testing and treatment engagement

- Of those who have already received antibody testing, engagement with a GP increases likelihood of RNA testing and treatment;

- RNA testing and treatment also associated with attendance to drug and alcohol counselling, as well as OST;

- History of incarceration also associated with antibody and RNA testing.
Need to build on strong anti-HCV testing

- Anti-body testing common
- RNA testing less so – missed opportunity
- Improving RNA testing will result in flow
Increasing GP testing and treatment could grow HCV workforce

- Increasing GP access for PWID, and increasing GP participation in HCV care will substantially grow the HCV workforce;

- Improving ease of testing and prompt return of results could improve flow through cascade of care;

- Particularly targeting those not reached by other treatments or services, e.g. people who use methamphetamine.
Simplifying testing and access needed

- Dried blood spot testing and rapid point-of-care testing
- Testing at services that are already being accessed
Thank you

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